

## NOTICE OF DRAFTSPERSON'S PATENT DRAWING REVIEW

PTO Draftpersons review all originally filed drawings regardless of whether they are designated as formal or informal. Additionally, patent Examiners will review the drawings for compliance with the regulations. Direct telephone inquiries concerning this review to the Drawing Review Branch, 703-305-8404.

The drawings filed (insert date) 5/3/95, are  
 A.  not objected to by the Draftsperson under 37 CFR 1.84 or 1.152.  
 B.  objected to by the Draftsperson under 37 CFR 1.84 or 1.152 as indicated below. The Examiner will require submission of new, corrected drawings when necessary. Corrected drawings must be submitted according to the instructions on the back of this Notice.

## 1. DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings:

Black ink. Color.  
 Not black solid lines. Fig(s) \_\_\_\_\_  
 Color drawings are not acceptable until petition is granted. Fig(s) \_\_\_\_\_

## 2. PHOTOGRAPHS. 37 CFR 1.84(b)

Photographs are not acceptable until petition is granted. Fig(s) \_\_\_\_\_  
 Photographs not properly mounted (must use bristol board or photographic double-weight paper). Fig(s) \_\_\_\_\_  
 Poor quality (half-tone). Fig(s) \_\_\_\_\_

## 3. GRAPHIC FORMS. 37 CFR 1.84 (d)

Chemical or mathematical formula not labeled as separate figure. Fig(s) \_\_\_\_\_  
 Group of waveforms not presented as a single figure, using common vertical axis with time extending along horizontal axis. Fig(s) \_\_\_\_\_  
 Individuals waveform not identified with a separate letter designation adjacent to the vertical axis. Fig(s) \_\_\_\_\_

## 4. TYPE OF PAPER. 37 CFR 1.84(c)

Paper not flexible, strong, white, smooth, nonshiny, and durable. Sheet(s) \_\_\_\_\_  
 Erasures, alterations, overwritings, interlineations, cracks, creases, and folds copy machine marks not accepted. Fig(s) 1-8  
 Mylar, velum paper is not acceptable (too thin). Fig(s) \_\_\_\_\_

## 5. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes:

21.6 cm. by 35.6 cm. (8 1/2 by 14 inches)  
 21.6 cm. by 33.1 cm. (8 1/2 by 13 inches)  
 21.6 cm. by 27.9 cm. (8 1/2 by 11 inches)  
 21.0 cm. by 29.7 cm. (DIN size A4)

All drawing sheets not the same size. Sheet(s) \_\_\_\_\_  
 Drawing sheet not an acceptable size. Sheet(s) \_\_\_\_\_

## 6. MARGINS. 37 CFR 1.84(g): Acceptable margins:

## Paper size

21.6 cm X 35.6 cm	21.6 cm X 33.1 cm	21.6 cm X 27.9 cm	21.0 cm X 29.7 cm
(8 1/2 X 14 inches)	(8 1/2 X 13 inches)	(8 1/2 X 11 inches)	(DIN Size A4)
T 5 1 cm. (2")	2.5 cm. (1")	2.5 cm. (1")	2.5 cm.
L .64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	2.5 cm
R .64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	1.5 cm.
B .64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	1.0 cm

Margins do not conform to chart above 4-6-58  
 Sheet(s) \_\_\_\_\_  
 Top (T)  Left (L)  Right (R)  Bottom (B) \_\_\_\_\_

## 7. VIEWS. 37 CFR 1.84(h)

REMINDER: Specification may require revision to correspond to drawing changes.

All views not grouped together. Fig(s) \_\_\_\_\_  
 Views connected by projection lines or lead lines. Fig(s) \_\_\_\_\_  
 Partial views. 37 CFR 1.84(h) 2

## COMMENTS:

View and enlarged view not labeled separately or properly. Fig(s) \_\_\_\_\_

Sectional views. 37 CFR 1.84 (h) 3

Hatching not indicated for sectional portions of an object. Fig(s) \_\_\_\_\_

Cross section not drawn same as view with parts in cross section with regularly spaced parallel oblique strokes. Fig(s) \_\_\_\_\_

## 8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i)

Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s) \_\_\_\_\_

## 9. SCALE. 37 CFR 1.84(k)

Scale not large enough to show mechanism with crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s) \_\_\_\_\_  
 Indication such as "actual size" or scale 1/2" not permitted. Fig(s) \_\_\_\_\_

## 10. CHARACTER OF LINES, NUMBERS, &amp; LETTERS. 37 CFR 1.84(l)

Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (except for color drawings). Fig(s) 4-6

## 11. SHADING. 37 CFR 1.84(m)

Solid black shading areas not permitted. Fig(s) \_\_\_\_\_  
 Shade lines, pale, rough and blurred. Fig(s) \_\_\_\_\_

## 12. NUMBERS, LETTERS, &amp; REFERENCE CHARACTERS. 37 CFR 1.84(p)

Numbers and reference characters not plain and legible. 37 CFR 1.84(p)(1) Fig(s) 4-6

Numbers and reference characters not oriented in same direction as the view. 37 CFR 1.84(p)(1) Fig(s) \_\_\_\_\_

English alphabet not used. 37 CFR 1.84(p)(2) Fig(s) \_\_\_\_\_

Numbers, letters, and reference characters do not measure at least 32 cm. (1/8 inch) in height. 37 CFR(p)(3) Fig(s) 4-6

## 13. LEAD LINES. 37 CFR 1.84(q)

Lead lines cross each other. Fig(s) \_\_\_\_\_  
 Lead lines missing. Fig(s) \_\_\_\_\_

## 14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(t)

Sheets not numbered consecutively, and in Arabic numerals, beginning with number 1. Sheet(s) \_\_\_\_\_

## 15. NUMBER OF VIEWS. 37 CFR 1.84(u)

Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) \_\_\_\_\_  
 View numbers not preceded by the abbreviation Fig. Fig(s) \_\_\_\_\_

## 16. CORRECTIONS. 37 CFR 1.84(w)

Corrections not made from prior PTO-948. Fig(s) \_\_\_\_\_

## 17. DESIGN DRAWING. 37 CFR 1.152

Surface shading shown not appropriate. Fig(s) \_\_\_\_\_  
 Solid black shading not used for color contrast. Fig(s) \_\_\_\_\_

1807/435/6

Sisson  
1 of 8

FIG. 1a

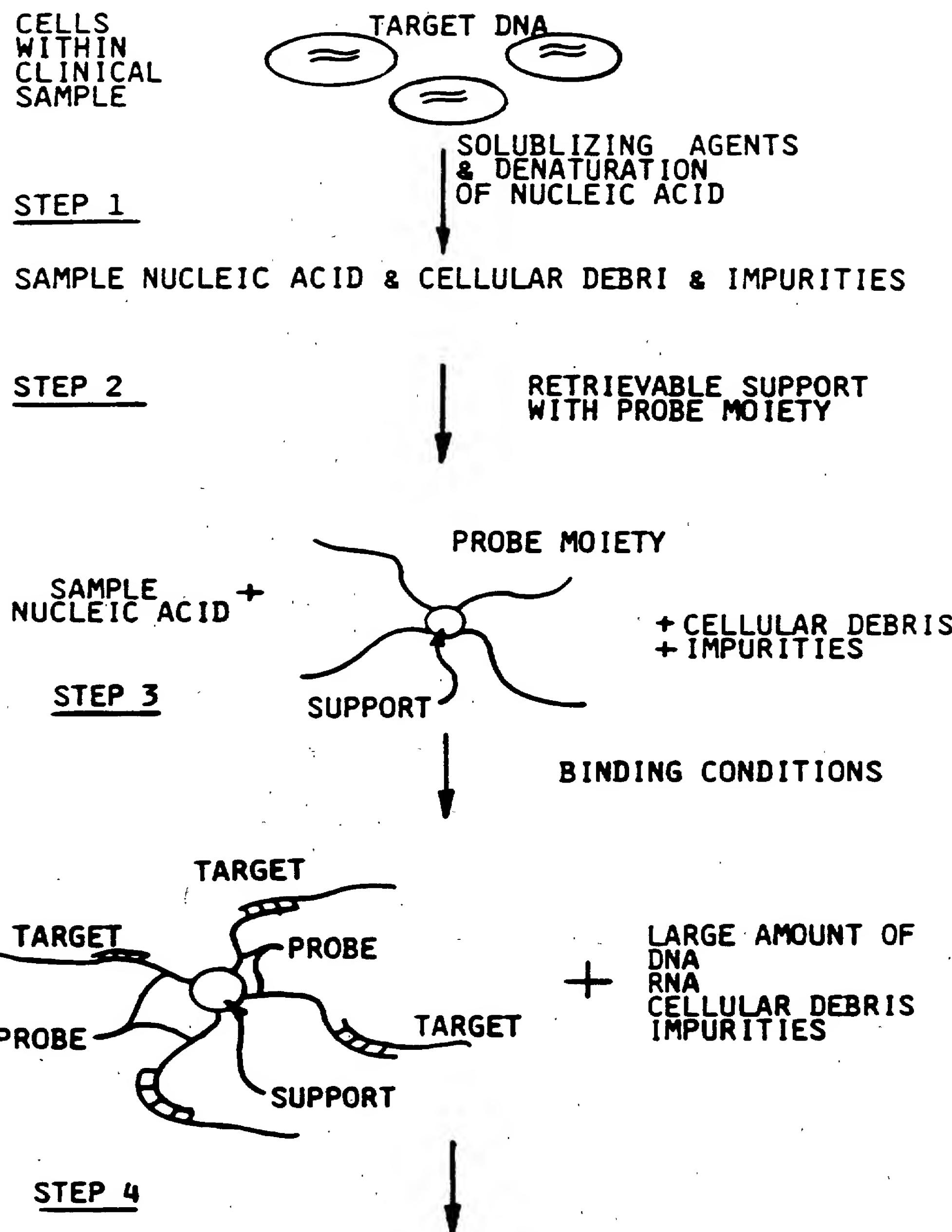
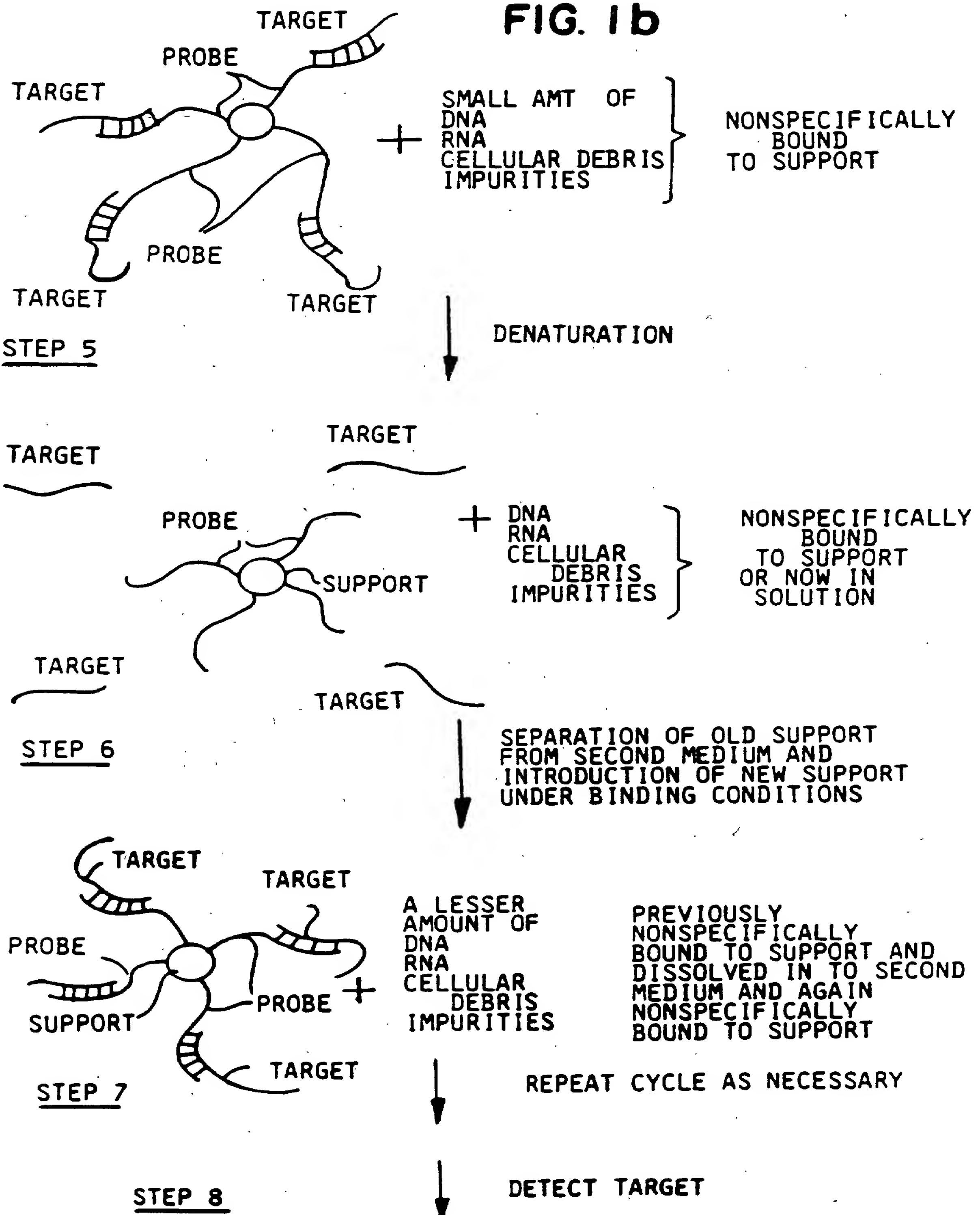


FIG. 1b

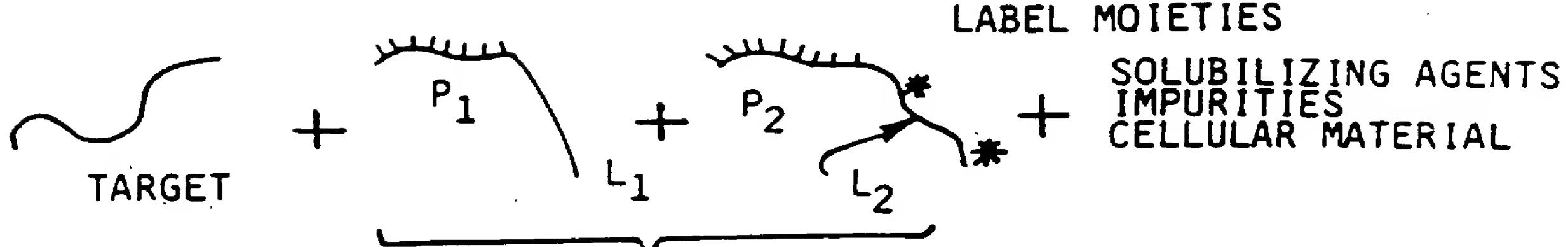


## FIG. 2a

CLINICAL SAMPLE

SOLUBILIZING AGENTS  
AND REAGENT

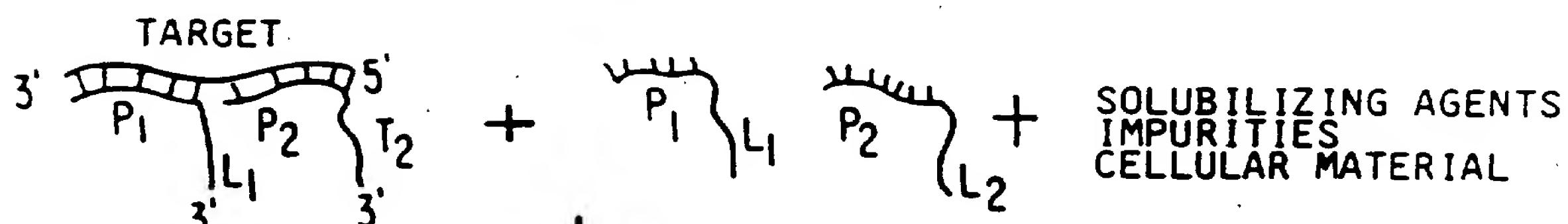
STEP 1



REAGENT

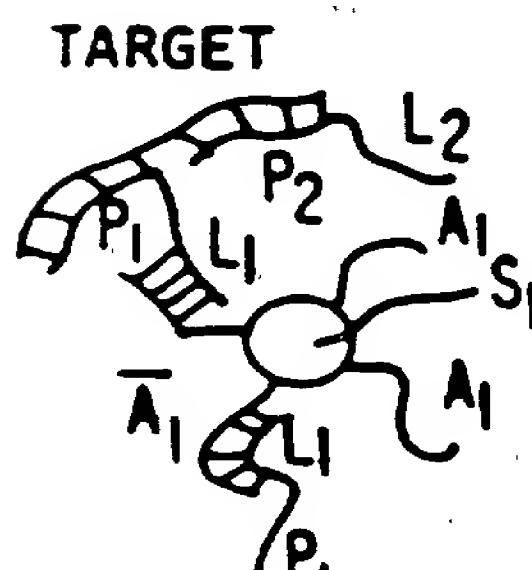
BINDING CONDITIONS

STEP 2



RETRIEVABLE SUPPORT WITH  
A<sub>1</sub> MOIETY UNDER BINDING CONDITIONS

STEP 3

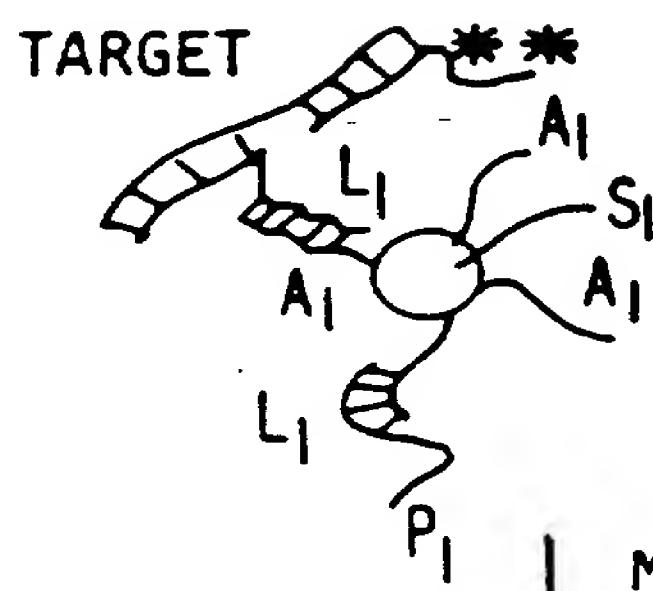


SOLUBILIZING AGENTS  
IMPURITIES  
CELLULAR MATERIAL

IMMOBILIZE RETRIEVABLE SUPPORT  
WASH IMMOBILIZED SUPPORT

STEP 4

FIG. 2b



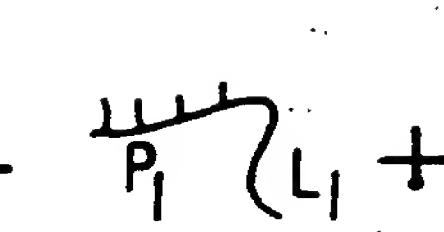
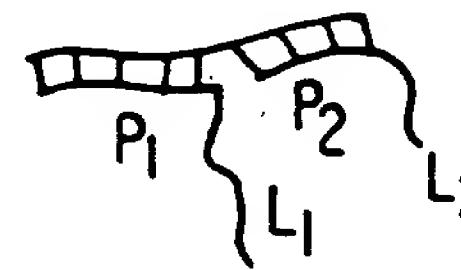
STEP 5

SEPARATE RETRIEVABLE  
SUPPORT FROM  
TARGET-PROBE  
COMPLEX BY  
DENATURATION

MONITOR  
SAMPLE  
FOR LABEL

STEP 6

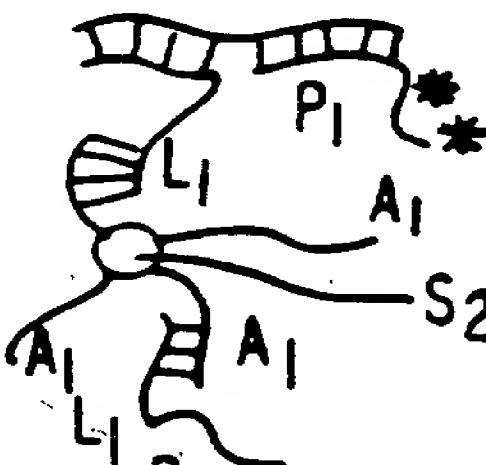
TARGET



REMOVE  
RETRIEVABLE SUPPORT

STEP 7

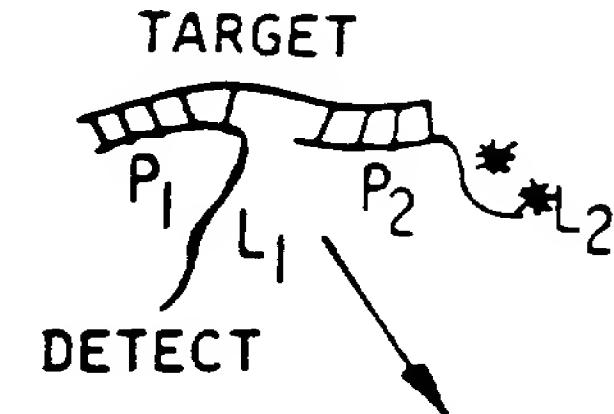
TARGET



REPEAT  
CYCLE

STEP 8

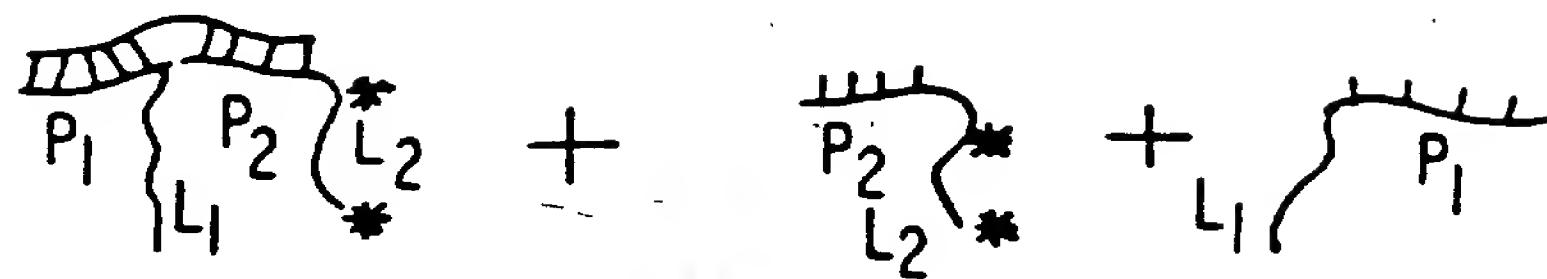
MONITOR SAMPLE  
FOR LABEL



DETECT

FIG. 3

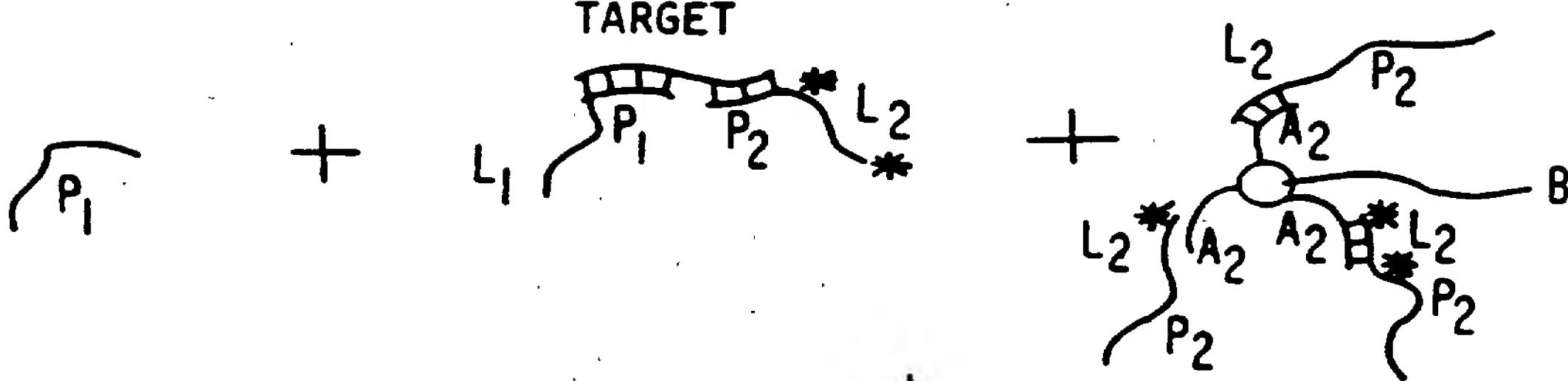
TARGET



STEP 1

SUPPORT SELECTIVELY BINDING  
TO SECOND LIGAND OF  $P_2$   
UNDER BINDING CONDITIONS

TARGET



STEP 2

REMOVE RETRIEVABLE  
SUPPORT ( $B_1$ )

TARGET



MONITOR  
SAMPLE  
FOR LABEL

FURTHER  
PROCESSING

STEP 3

Target DNA in rough sample  
↓  
capture probe (a protein) 238080  
capture bond  
Binding conditions

Step 1



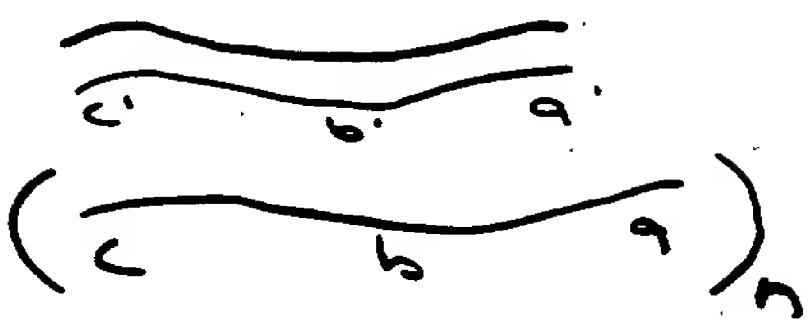
Step 2

↓ isolate bonds

target DNA (substantially free of sample  
impurities, debris, extraneous  
polynucleotides)

Step 3

↓ core RNA polymerase  
Low salt buffer



target DNA

RNA complementary to target DNA

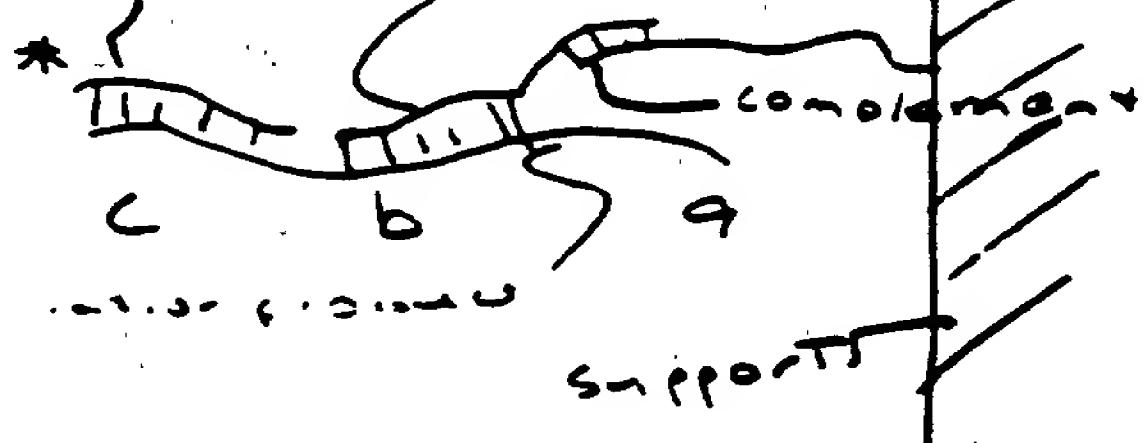
laser probe surface

core RNA polymerase

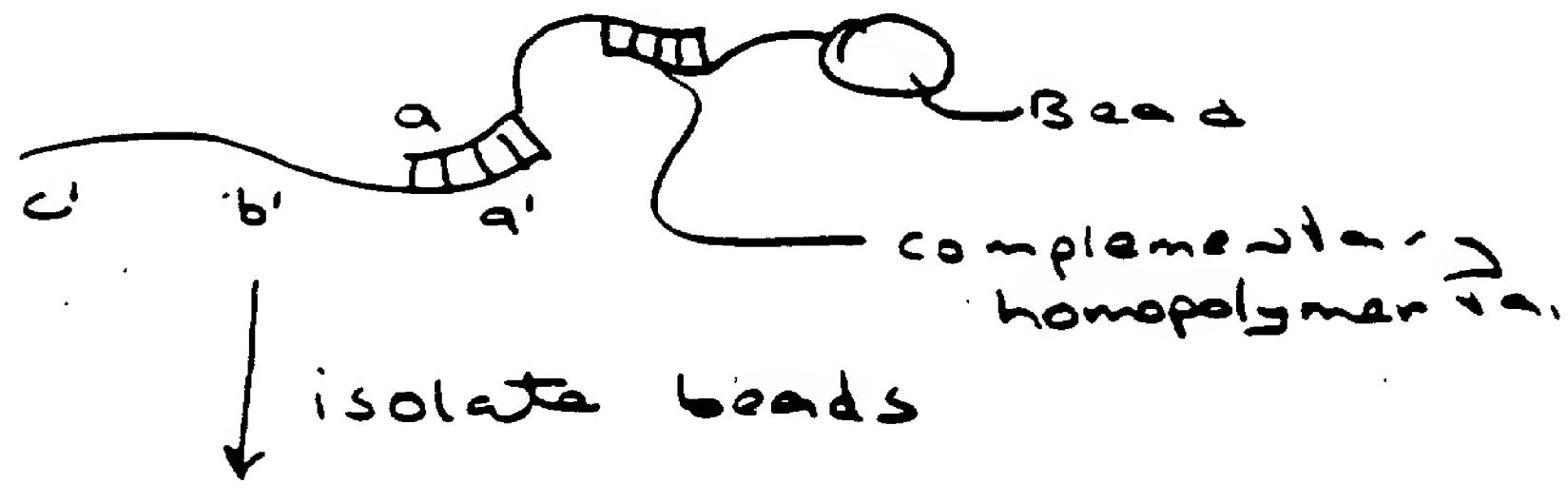
labeled probe

capture probe

capture support



Step 1



Step 2

isolate beads

Target DNA (substantially free of sample impurities, debris, extraneous polymeric strands)

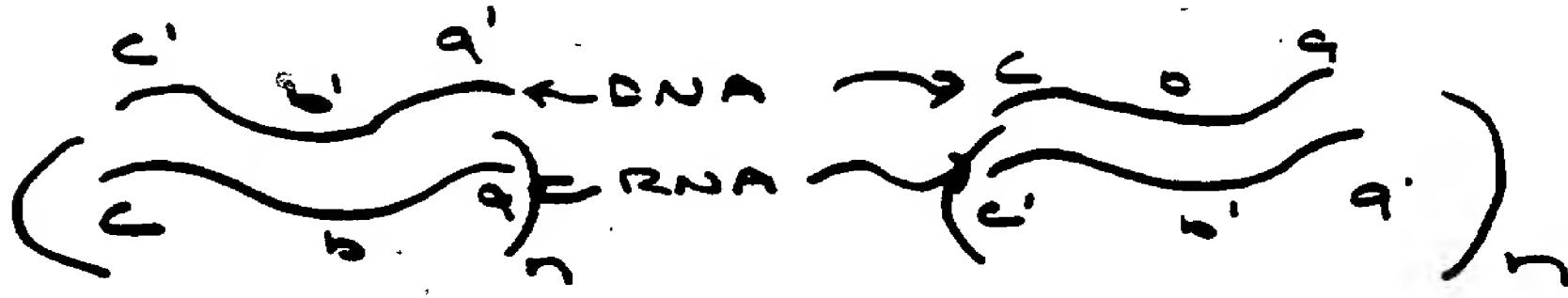
Step 3a

↓ DNA polymerase hexamer primers



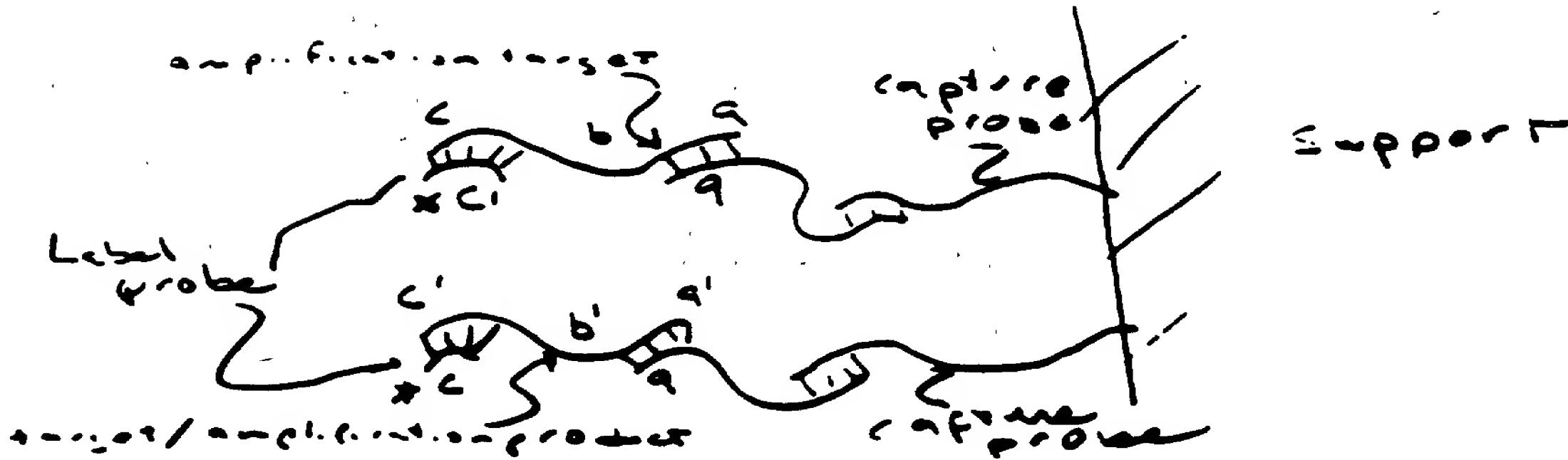
Step 3b

↓ core RNA polymerase low salt buffer

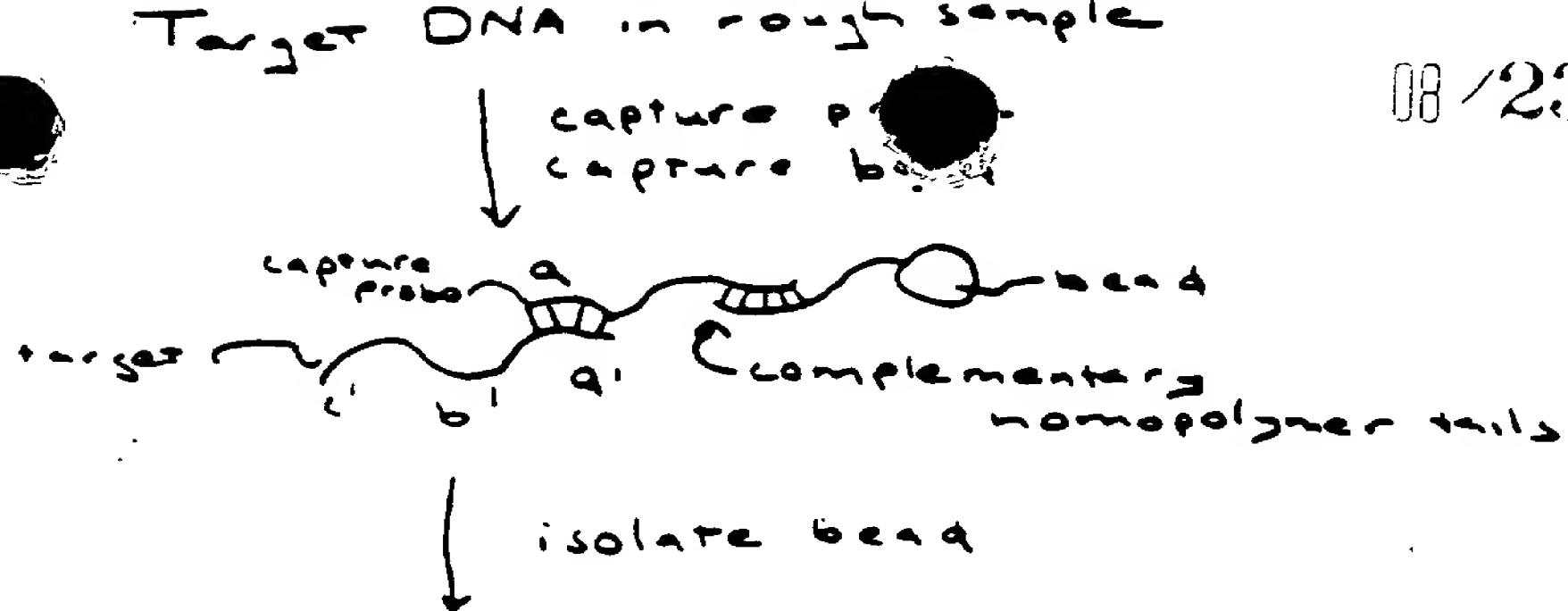


Step 4

↓ labeled probe capture probe support



Step 1



Target DNA (substantially free of sample  
impurities, debris, and extraneous  
polynucleotides)

Step 3a

DNA polymerase  
Hot start primers

first complement  
target

Step 3b

1. denature  
2. DNA polymerase

first complement

first complement  
complement target

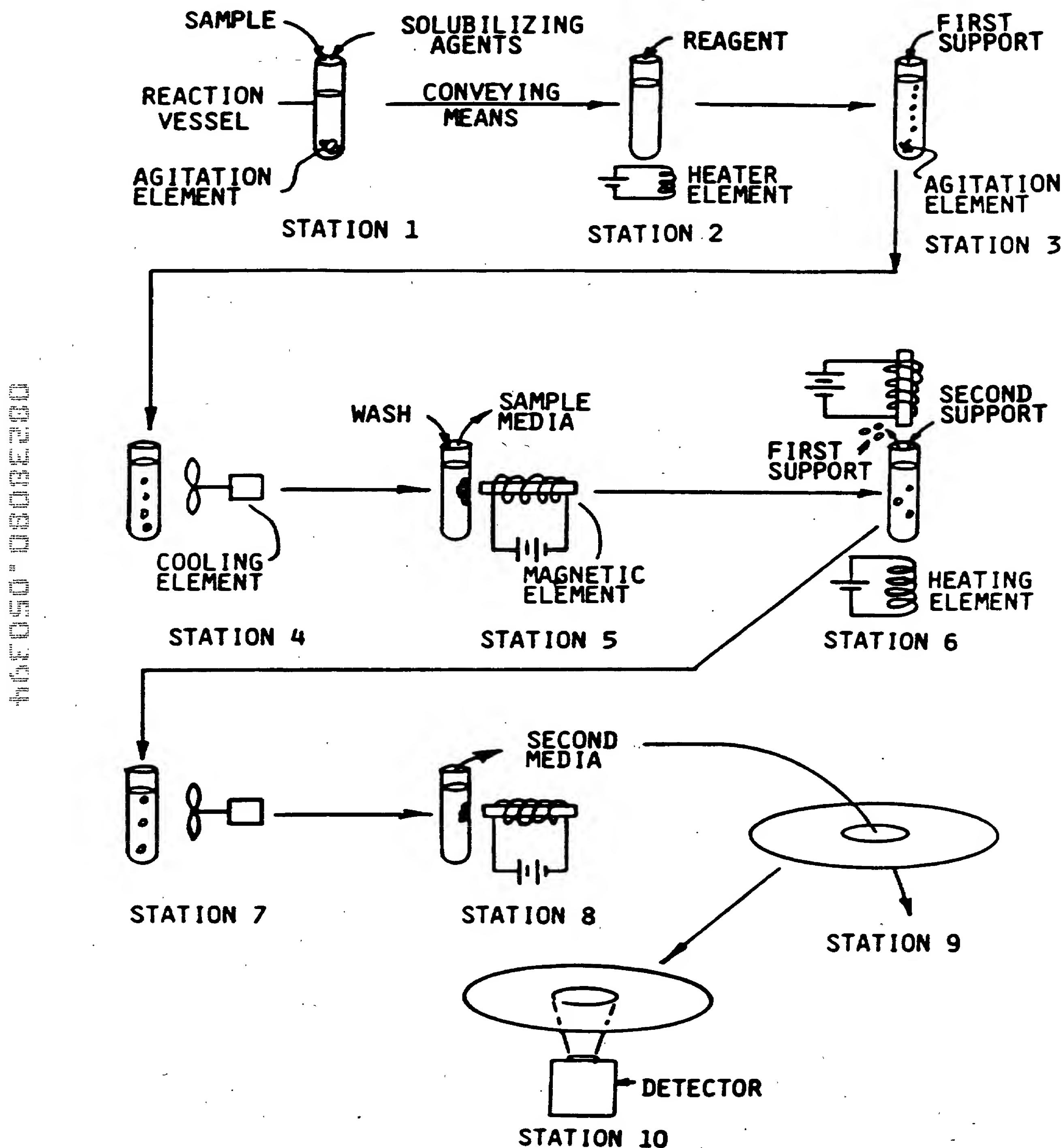
denature  
laser probe  
capture support  
capture probe

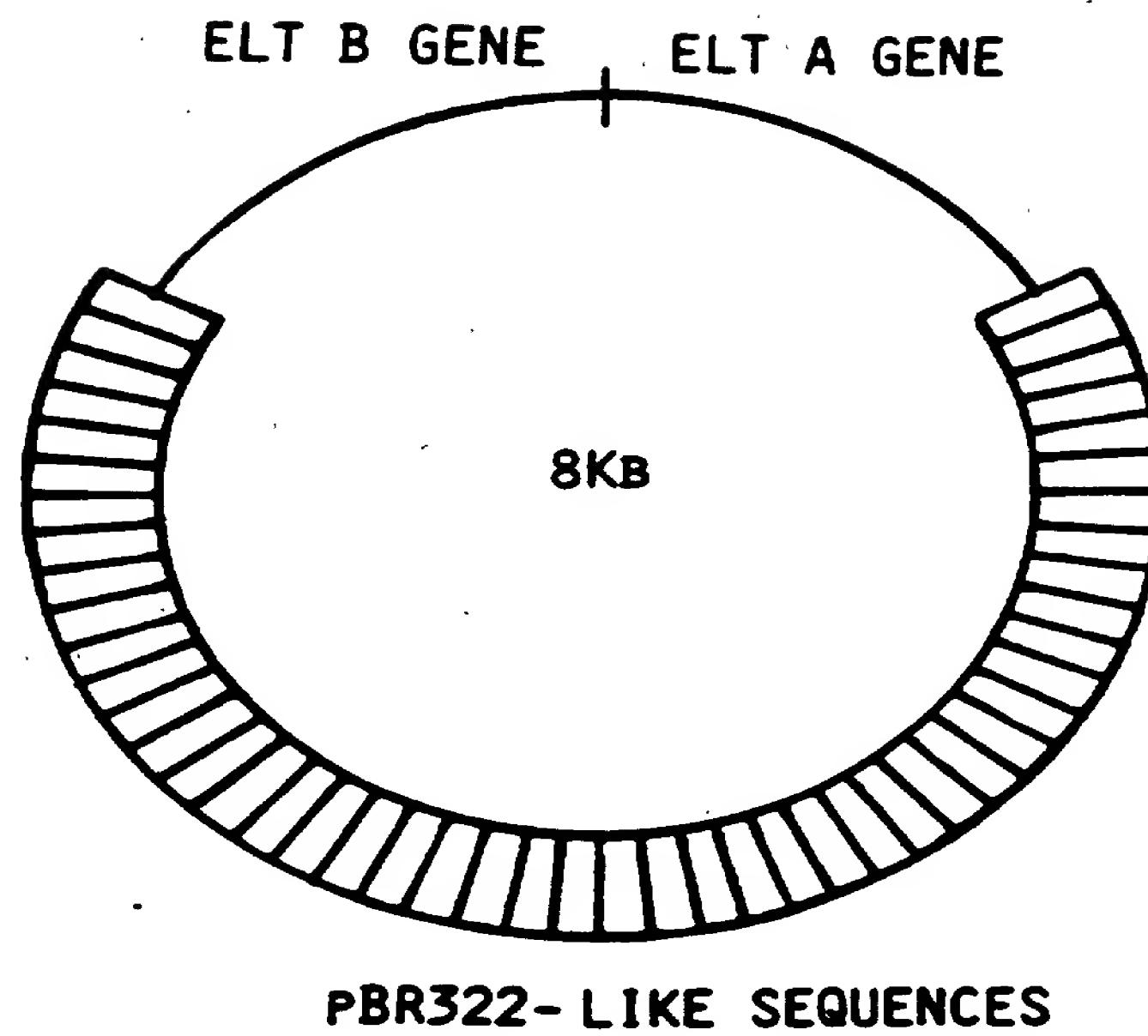
target/amplication product

laser probe  
capture probe  
capture support  
capture probe  
complementary  
homopolymer tails  
support

amplication product

FIG. 7





**FIG. 8**